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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,336	01/09/2004	Fumihiko Aiga	247553US2	7109

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EXAMINER	
NGUYEN, LINH V	

ART UNIT	PAPER NUMBER
2819	

DATE MAILED: 07/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/753,336	AIGA ET AL.	
	Examiner	Art Unit	
	Linh V. Nguyen	2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18-22 and 27* is/are allowed.

6)☒ Claim(s) *1, 5, 7, 9, 10, 11, 13, 14, and 23 - 25* is/are rejected.

7)☒ Claim(s) *2 – 4, 6, 8, 12, 16, and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to communication filed on 4/27/06. Claims 1 – 27 are pending on this application.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 7, 11, and 15 have been fully considered but they are not persuasive from the following:

Under remarks with respect to claims 1, 7 and 11, applicant argued "Lockhart fails to teach or suggest a real/pure imaginary block which realizes a real zero of a transfer function and a pure imaginary zero of the transfer function". Examiner is respectful traverses; because Fig. 5a and Col. 5 lines 59 – 67, Lockhart teaches a logic bock [23] having a function which provides a real zero output [24] and imaginary zero output [25]. Therefore, LockHart clearly discloses a real/pure imaginary block [23], which realizes a real zero of a transfer function (24) and a pure imaginary zero (25) of the transfer function

Under remarks, with respect to claim 15, applicant argued, "Hess fails to teach or suggests a first complex block which realizes a complex zero of a transfer function". Examiner respectful traverses because transfer function is an intrinsic characteristic for every electrical device in a circuit. Since, the electrical device 20 in Fig. 5 of Hess et al. providing a complex zero output (col. 5 lines 59 – 60); therefore electrical device 20 of Hess et al. clearly teach a complex block which realizes a complex zero of a transfer function.

Per explained above, Lockhard et al. and Hess et al. from prior office action is applying to this office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 5, 7, 9, 10, 11, 13, 14, and 23 - 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Lockhart U.S. patent No. 4,521,749.

Regarding claim 1, Fig. 5a of Lockhart discloses a filter circuit comprising: a complex block (20) which realizes a complex zero of a transfer function (Col. 5 lines 63 – 64); a real/pure imaginary block (23) which realizes a real zero of a transfer function and a pure imaginary zero of the transfer function (Col. 5 lines 64 – 67; disclosing the device 23 output real zero output 24 and imaginary output 25); and a single path (21, 22) circuit which couples the complex block (20) with the real/pure imaginary block (23) through a single-path (22).

Regarding claim 5, Fig. 5a of Lockhart further disclosing: a second complex block (second, third, inputs to .... Filters of 21) which realizes a complex zero of a transfer function (Col. 5 lines 63 - 64)

Regarding claims 7, and 9, the claim incorporated substantially the same subject matter as of claim 1; therefore Lockhart as applied 1 above disclosed every aspect of applicant's claimed invention.

Regarding claim 10, Fig. 5a of Lockhart further comprising: a second single path circuit (second 21, second 22), which couples the complex block (20) with the pure imaginary block (23) through a single-path second 21, second 22 disclosing a single path for coupling 20 and 23).

Regarding claims 11 and 13, the claim incorporated similar subject matter as of claim 1, and rejected along the same rationale.

Regarding claim 14, a second single path circuit (26), which couples the real block (24) with the pure imaginary block (25) through a single-path (output of 26 disclosing a single path output circuit).

Regarding claims 23, 24, 25, wherein the complex zero deviates from a real axis and imaginary axis (this is an intrinsic characteristic of complex zero with respect to the real axis, and imaginary axis because real zero occurred by a value on the real axis, imaginary zero occurred by a value on the imaginary axis, and complex zero is a zero occurred by values that deviate from real and imaginary axis).

5. Claims 15 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hess et al. U.S. Patent No. 5,170,413.

Fig. 1 of Hess et al. discloses a filter circuit (18) comprising: a complex block (20) which realizes a complex zero of a transfer function (Col. 5 lines 55 – 60); a second complex block (20B) which realizes a complex zero of a transfer function; and a single path (24, 26) circuit which couples (22) the first complex block (20) with the second complex block (20B) through a single path (output of 22 discloses a single path).

Regarding claim 26, wherein the complex zero deviates from a real axis and imaginary axis (this is an intrinsic characteristic of complex zero with respect to the real axis, and imaginary axis because real zero occurred by a value on the real axis, imaginary zero occurred by a value on the imaginary axis, and complex zero is a zero occurred by values that deviate from real and imaginary axis).

Allowable Subject Matter

6. Claims 2 – 4, 6, 8, 12, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 18 – 22, and 27 are allowed.

Prior Art

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

9 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (571) 272-1810. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Rexford Barnie can be reached at (571) 272-7492. The fax phone numbers for the organization where this application or proceeding is assigned are (571-273-8300) for regular communications and (571-273-8300) for After Final communications.

6/27//06

Linh Van Nguyen

Art Unit 2819

LINH NGUYEN
PRIMARY EXAMINER